

KE vs PE

Important Eq.

$$PE = mgh$$

$$KE = \frac{1}{2}mv^2$$

Name: Key

①

$$PE = 200J$$

$$KE = 800J$$

$$ME = 1000J$$

②

$$PE = 1000J$$

$$KE = 0J$$

$$ME = 1000J$$

③

$$PE = 500J$$

$$KE = 500J$$

$$ME = 1000J$$

④

$$PE = 0J$$

$$KE = 1000J$$

$$ME = 1000J$$

⑤

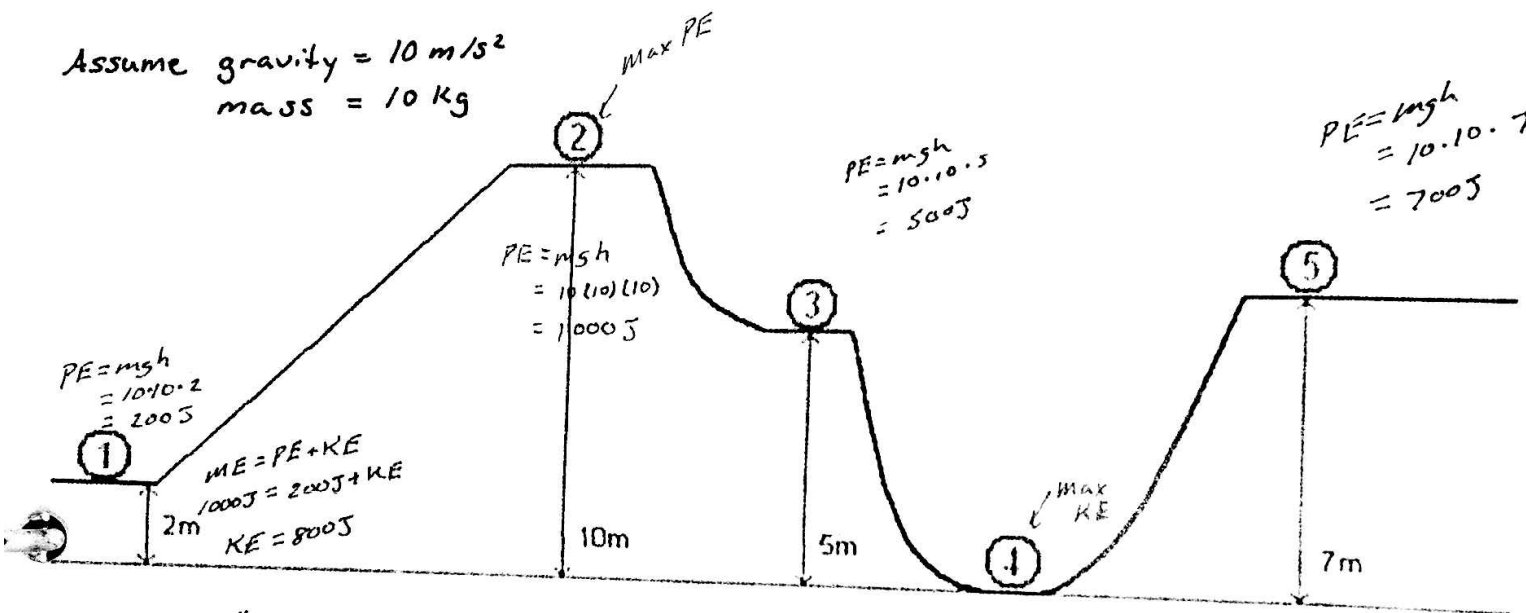
$$PE = 700J$$

$$KE = 300J$$

$$ME = 1000J$$

ME = Total Energy = Same throughout the whole system.

Assume gravity = 10 m/s^2
mass = 10 kg



$$PE = 50 \cdot 10 \cdot 4 = 2000J$$

$m = 50 \text{ kg}$

